Page 1

Item 1D: 647.1815 Accept *N900040100* Setup Start **Revision ID:** Item Name: Gusset RH Start Qty: 1.00 **Start Date:** 19/10/2012 **Cust Item ID: Required Date:** 02/11/2012 Req'd Qty: 1.00 **Customer:** Reference: Run Process Plan: ML5 Date: 12-10-19 Tooling: Approvals: Date: Stop Date: SPC (Y/N): Date: Sequence ID/ Operation Set Up/ Tool ID Tool # Plan Reject Reject Insp. Accept Work Center ID Description Run Hours Qty Number Stamp Code Qty Draw Nbr **Revision Nbr** 647.1800 N/C 110 0.00 *110* Waterjet 0.00 Memo FLOW CNC Waterjet 1-Cut as per Dwg 2070. 4606 Prog Rev: N/C 2-Deburr if necessary 120 QC2- Inspect parts off machine FAI/FAIB 0.00 *120* QC 0.00 Memo Quality Control

										DQA:	Date	2:
NCR: Y	es / No				WORK ORDER NON-	CONF	FORN	MANCE / UPD	DATE		_	
										QA Closed:	Date	2:
Work Orde	r:				DISPOSITION				AGAINST DE	PARTMENT	/PROCESS	·
Part N NCR N	0.				Rework Scrap Use-as-is Work Order Update		Skid-tube Crosstube Machining Small Fab Thermoforming Finishing Large Fab Composite			Water Jet Prod. Eng. Coor. Rec/Store/Packaging Supplier		Engineering Quality Other
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Root					ption of work order update	1	itial	Acti	ion	Sign &		
Cause	Date	Step	Qty	(or Non-conformance	Chie	f Eng	Descri	iption	Date	Verification	QC Inspector
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	Bending				Bend	\square G	irain			Ovalized		Pressure/Forced
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	Cracks				Broken/Damaged	In	ispection is a second of the s	on Incomplete		Part Incorre	ct	Weld
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	Cuffs				Contamination	L∐∾	1ainte	nance		Part Moved		
	Heat Trea	t			Countersink	\square	1islabel	led		Positioned V	Vrong _	
	Inspection	n Strip in	Tube		Cut Too Short	\square M	1isread		:	Power Loss/	Surge	Other
	Ripples in	Bend			Drill Holes		ffset					
	Torque W	aves in E	xtrusio	າ [_	Drawing	Out of Calibration						
	Turning Sequence Finish			Out of Sequence								

Outside Dimensions

Wave/Twist in Tube

Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Page 2

Item ID: 647.1815 Accept *N900040100* Setup Start **Revision ID:** Item Name: Gusset RH **Start Date:** 19/10/2012 Start Qty: 1.00 **Cust Item ID: Required Date:** 02/11/2012 **Req'd Qty:** 1.00 **Customer:** Reference: Run Process Plan: Approvals: Date: _____ Tooling: Date: QC: Date: SPC (Y/N): Date: Sequence ID/ **Operation** Set Up/ Tool ID Tool # Plan Reject Reject Insp. Accept Work Center ID Description Code Qty Qty Number Stamp Run Hour 130 QC8- Inspect parts - second check *130* Memo Quality Control 140 Form as per dwg 0.00 *140* Brake NC 0.00 Memo Brake NC 150 QC5- Inspect part completeness to step on W/O *150* Memo Quality Control

NCR:	Yes	/	No
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DQA:

Date:

NCR:	CR: Yes / No WORK ORDER NON-CONFORMANCE / UPDATE .														
		,							•		QA Closed:	Date:	•		
Vork Ord	er:					DISPOSITION		AGAINST DEPARTMENT/PROCESS							
Part I	No.					Rework Scrap		Skid-tube Crosstub Machining Small Fa			₹	Water Jet d. Eng. Coor.	Engineering Quality		
NCR I	Vo.		<u>. </u>			Use-as-is Work Order Update	_		noforming Large Fab	Finishing Composite	Rec/Stor	e/Packaging Supplier	Other		
Root Description of work order update							T	nitial	Ac	tion	Sign &				
Cause		Date	Step	Qty		or Non-conformance	Ch	hief Eng Description			Date	Verification	QC Inspector		
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	<u> </u>	Cracks				Broken/Damaged	<u> </u>	•	on Incomplete	<u> </u>	Part Incorred	<u> </u>	Weld		
	_	Crushed/0	Crimped.		<u> </u>	Burrs	_	1	ions Incomplete/	'Unclear	Part Lost/Mi	ssing	Wrong Stock Pulled		
	<u> </u>	Cuffs			_	Contamination	<u> </u>	Mainte			Part Moved				
	<u> </u>	Heat Trea				Countersink	_	Mislabe			Positioned V		-,		
	<u> </u>	Inspection	-	Tube		Cut Too Short	_	Misreac	l	<u></u>	Power Loss/	Surge	Other		
		Ripples in			lacksquare	Drill Holes	_	Offset				<u> </u>			
	$oxed{oxed}$	Torque W			ո _	Drawing	<u> </u>	4	Calibration						
	$ldsymbol{ld}}}}}}}$	Turning Se				Finish	Out of Sequence								
		Wave/Tw	ist in Tub	e		Folio	Outside Dimensions								

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92013

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Quality Control

Item ID: Revision ID: Item Name:	647.1815 Gusset RH			Accept	*N900	040	100)* s	etup Start Stop	14.	\$1* \$0*
Start Date: Required Date Reference:	19/10/2012	Start Qty: 1.00 Req'd Qty: 1.00	*1* *1*		Cust Item I Customer:	D:				IV.	\
Approvals:	Process Pla	an:	Date:			ate:	·	Ą	tun Start Stop	IN P	?1* ?2*
Sequence ID/ Work Center I 160 *160* Outsource4 Outsource process		Operation Description Outsource process-Anod Memo ISSUE P/O: HARD ANO	19399	Set Up/ Run Hours 0.00 0.00	Tool ID	Tool#	Plan Code	Accept Qty	Reject Qty	Number	Insp. Stamp
170 *170* Packaging Packaging		Receive & Inspect for Da	amage & Mat'l Certs	0.00	·				/c/12	14/28 ((Ú)_
180 *1 2 1 **		QC5- Inspect part compl	eteness to step on W/O	0.00 PS 15 0.00 13 11 3	3			1			

NCR: Ye	es / No	١

WORK ORDER NON-CONFORMANCE / UPDATE

	•		. 9
	DQA:	_ Date:	•
_	QA Closed:	Date:	•
E	PARTMENT	PROCESS	·
		Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Other
	Sign & Date	Verification	QC Inspector

											QA Closed:	Date	<u> </u>
Work Orde	r.					DISPOSITION				AGAINST D	EPARTMENT,	/PROCESS	
Part N	- lo					Rework Scrap Use-as-is Work Order Update		Skid-tube Crosstube Water Jet Engineering Machining Small Fab Prod. Eng. Coor. Qualit Thermoforming Finishing Rec/Store/Packaging Othe Large Fab Composite Supplier					
Root					Descri	ption of work order update	1	nitial	Ac	tion	Sign &		
Cause		Date	Step	Qty	(or Non-conformance	Ch	ief Eng	Desc	ription	Date	Verification	QC Inspector
Doc/Data Equip/Tooling Operator													
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}	$\overline{}$	Bending			- /-	Bend	\vdash	Grain		-	Ovalized		Pressure/Forced
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ŀ		Cuffs	Jimpea.		-	Contamination	\vdash	Mainte	•	Uliclear	Part Moved	rssuig [wrong stock Pulled
ŀ	\neg	-uns Heat Trea	+			Countersink		Mislabe		-	Positioned V	Mrong	
-		nspection		Tuho	-	Cut Too Short	\vdash	Misread		<u> </u>	Power Loss/		Other
•	_	Ripples in		Tube		Drill Holes		Offset	4	L	7, ower 1033/	Juige _	Other
ŀ		Torque W		xtrusio	, <u> </u>	Drawing	-		Calibration			•••	
ŀ	_	Turning S				Finish	-		Sequence				
}	_	Wave/Tw		e		Folio	\vdash		Dimensions				
H·/EORMS/Oua						<u> </u>							

Page 4

Item ID: 647.1815 Accept *N900040100* Setup Start **Revision ID:** Item Name: Gusset RH **Start Date:** 19/10/2012 Start Qty: 1.00 **Cust Item ID: Required Date:** 02/11/2012 Req'd Qty: 1.00 **Customer:** Reference: Run Process Plan: Date: Approvals: **Tooling:** Date: Stop Date: SPC (Y/N): Date: Operation Sequence ID/ Set Up/ Tool ID Tool # Plan Accept Reject Reject Insp. Work Center ID Description **Run Hours** Qty Code Qty Number Stamp 190 0.00 *190* SprayPaint 0.00 Memo Spray Painting PRIME IAW MIL-P-23377J TYPE1 CLASS N AS PER DWG. (SEE NOTE 2) 200 QC14- Inspect Spray Paint 0.00 *200* QC 0.00 Memo Quality Control Identify as per dwg & Stock Location: 135C 210 10/13/01/9 () *210* Packaging 0.00 Memo Packaging ***IDENTIFY AS PER APICAL MPP-120 BY STAMPING P# AND REV***

						WORK ORDER MON					DQA:	Date:	
NCR:	Yes	/ No				WORK ORDER NON-	COI	NFORI	MANCE / UP	DATE	QA Closed:	Date:	•
Work Orde	or:					DISPOSITION				AGAINST DE	PARTMENT,	/PROCESS	
Part N	1 1 1					Rework Scrap Use-as-is Work Order Update		Skid-tube Crosstube Machining Small Fal Thermoforming Finishin Large Fab Composite			1	Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Other
Root						ption of work order update		Initial		tion	Sign &		
Cause		Date	Step	Qty	(or Non-conformance	Ch	ief Eng	Desc	ription	Date	Verification	QC Inspector
Doc/Data	Ш												
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Landi	ng G	ear				General							
	E	Bending				Bend		Grain			Ovalized		Pressure/Forced

Hardware

Maintenance

Out of Calibration

Out of Sequence

Outside Dimensions

Mislabeled

Misread

Offset

Inspection Incomplete

Instructions Incomplete/Unclear

Over/Under tolerance

Part Incorrect

Part Moved

Part Lost/Missing

Positioned Wrong

Power Loss/Surge

Temperature/Cure

Wrong Stock Pulled

Weld

Other

BOM/Route

Contamination

Countersink

Cut Too Short

Drill Holes

Drawing

Finish

Folio

Burrs

Broken/Damaged

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Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Cracks

Cuffs

Heat Treat

Crushed/Crimped.

Inspection Strip in Tube

Torque Waves in Extrusion

Centre Not Concentric to O/S

		•	•	
Item	ID:		64	7.181

647.1815

Accept

N900040100

Setup Start

Revision ID:

Start Date:

Item Name: Gusset RH

Required Date: 02/11/2012

19/10/2012

Start Qty: 1.00 **Req'd Qty:** 1.00

Date: _____

Cust Item ID:

Customer:

Tool ID

Reference:

Approvals:

Process Plan:

QC:

Date:

Tooling:

SPC (Y/N):

Set Up/

Run Hours

Date:

Run

Stop

Sequence ID/ Work Center ID Operation Description

Tool # Plan

Date:

Accept Qty Code

Reject Reject Oty

Insp. Number Stamp

220

220

Quality Control

Memo

QC21- Final Inspection - Work Order Release

0.00

0.00

MF 13-01-09

											DQA	: Date:	^
NCR:	Yes	/ No				WORK ORDER NON-O	COI	NFORM	MANCE / UP	DATE			
	-										QA Closed	: Date:	•
Work Ord	er:					DISPOSITION				AGAINST DE	PARTMEN	T/PROCESS	
	٠					Rework]		Skid-tube Crosstube			Water Jet	Engineering
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									Finishing	Rec/Sto	ore/Packaging	Other	
NCR I	No.					Work Order Update]		Large Fab	Composite]	Supplier	
Root			<u> </u>		Descri	ption of work order update	Τ.	Initial	Δα	tion	Sign &	<u> </u>	· · · · · · · · · · · · · · · · · · ·
Cause		Date	Step	Qty		or Non-conformance		nief Eng		ription	Date	Verification	QC Inspector
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Landi	ng G	iear				General		_					_
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		Cuffs				Contamination		Mainte	nance		Part Moved	<u> </u>	_
		Heat Trea	t			Countersink		Mislabe	led		Positioned Wrong		
		Inspection Strip in Tube				Cut Too Short		Misread			Power Loss	/Surge	Other

Offset

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Torque Waves in Extrusion

Drill Holes

Drawing

Finish

Folio

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Picklist Print

October-19-12 1:20:54 PM

Work Order ID: 92013

647.1815

Parent Item Name: Gusset RH

92013

647 1815

Start Date: 19/10/2012

Required Date: 02/11/2012

Start Qty: 1.00

Required Qty: 1.00

Comments:

Parent Item:

IPP REV:A 12.10.03 NEW ISSUE DD VERF:JFS

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit		Qty Issued	Date Issued	Status
M2024T3S.040 *M2024T3.040 *M2024T3.040 sheet	RS 040*	Purchased	No			110	sf	218.7612	0.085 **	_0.089474 	-	Habin	Jm12-11-1
				Location MAT022	120605	<u>Loc</u> (218.761 32.912	1626	Loc Code	_				

32.498421 23.7

129.65

121197

122136

123217

Page 1

NCR:	Yes	/	No	
		•		

NCR: Y	es / No				WORK ORDER NON-	CONFO	ORN	MANCE / UP	DATE			_
										QA Closed:	Date	<u>: </u>
Work Order:				DISPOSITION		AGAINST			DEPARTMENT/PROCESS			
					Rework]		Skid-tube	Crosstube		Water Jet	Engineering
Part N	0				Scrap	<u> </u>	ſ	Machining	Small Fab	4	d. Eng. Coor.	Quality
					Use-as-is	J I™		noforming	Finishing	Rec/Stor	re/Packaging Supplier	Other
NCR N	0				Work Order Update	_	Large Fab Composite		Composite]		
Root				Descr	iption of work order update	Initi	al	Ac	tion	Sign &		
Cause	Date	Step	Qty		or Non-conformance	Chief	Eng	Desc	ription	Date	Verification	QC Inspector
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quip/Tooling												1
Operator				•								
Material		1										
Setup						ļ						
Other												
Process											:	
Supplier	_											
Training												
Unapproved												
						FAULT C	ATE	GORY				
Landin	ng Gear			_	General					ד	_	¬
Ļ	Bending				Bend	Gra	ain	*	1	Ovalized	_	Pressure/Forced
	Centre No	ot Conce	ntric to (o/s	BOM/Route	Hai	rdwa	re		Over/Under	tolerance	Temperature/Cure
L	Cracks				Broken/Damaged	Ins	pecti	on Incomplete		Part Incorre	ct	Weld
	Crushed/	Crimped			Burrs	Ins	truct	ions Incomplete,	/Unclear	Part Lost/Mi	ssing	Wrong Stock Pulled
	Cuffs				Contamination	Mã	Maintenance			Part Moved		
Ĺ	Heat Treat				Countersink	Mis	slabe	led		Positioned Wrong		_
	Inspectio	n Strip in	Tube		Cut Too Short	Mis	Misread			Power Loss/	Surge	Other
	Ripples in	n Bend			Drill Holes	Off	set					
	Torque W	/aves in E	xtrusio	n [Drawing	Ou	t of (Calibration				
	Turning S	equence			Finish	Ou	t of S	Sequence				
	Wave/Tw	ist in Tul	oe -		Folio	Ou	tside	Dimensions				

Date: ____

DQA:

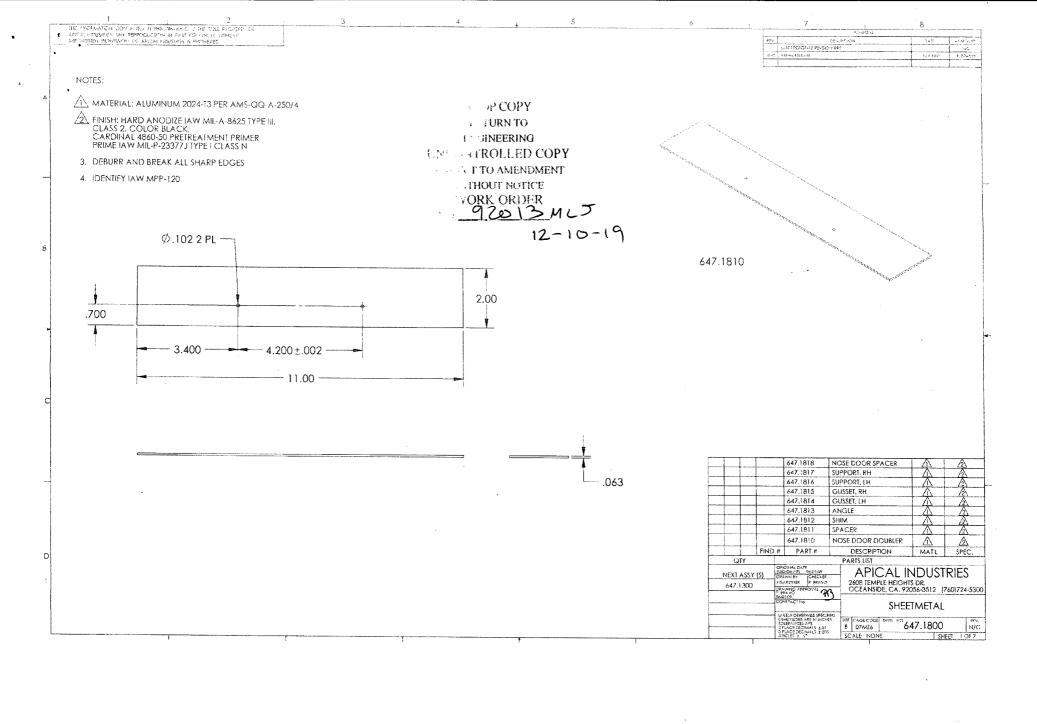
DART AEROSPACE LTD	Work Order:	92013
Description: Gusset Rt	Part Number:	647-1815
Inspection Dwg: 647.1800 Rev: ハ/c		Page 1 of 1

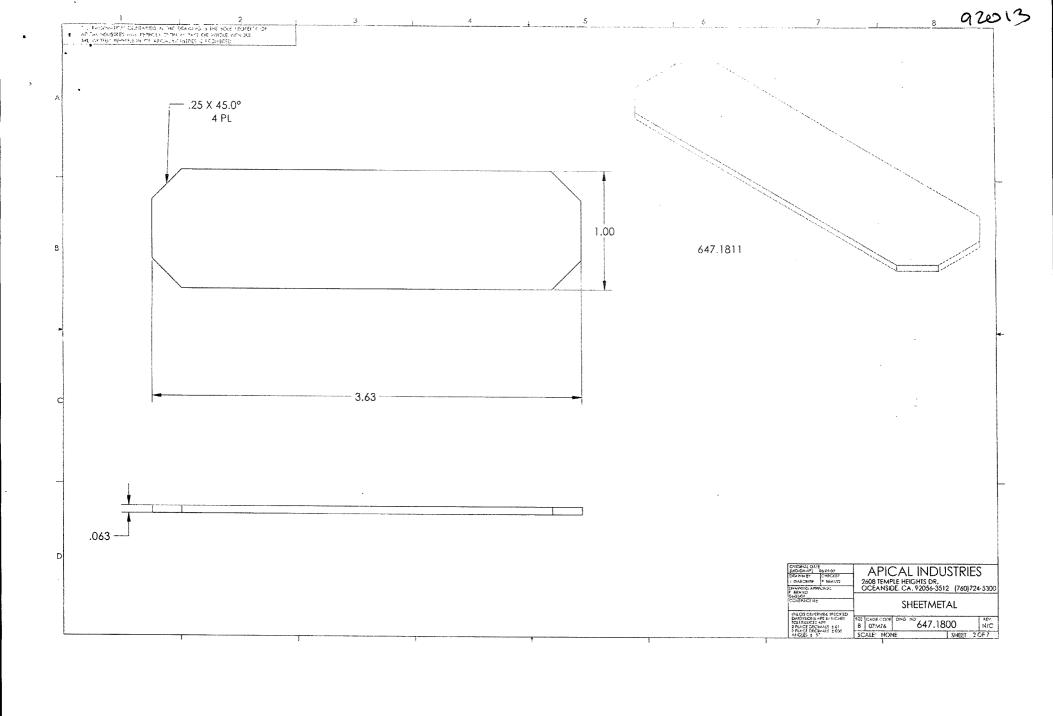
FIRST ARTICLE INSPECTION CHECKLIST

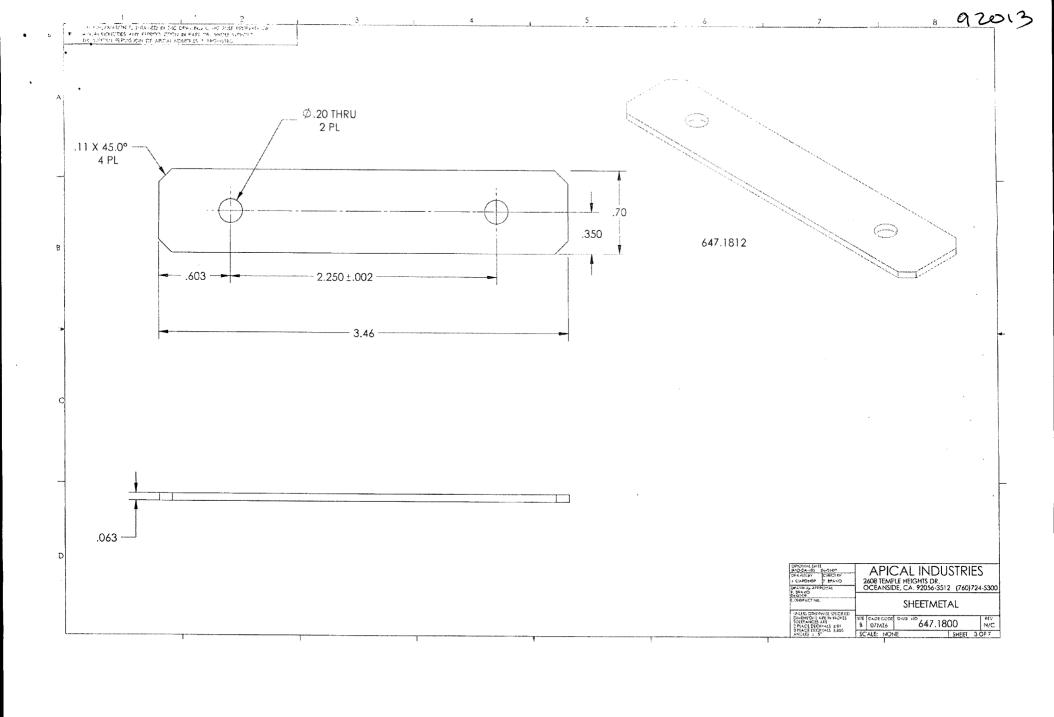
Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
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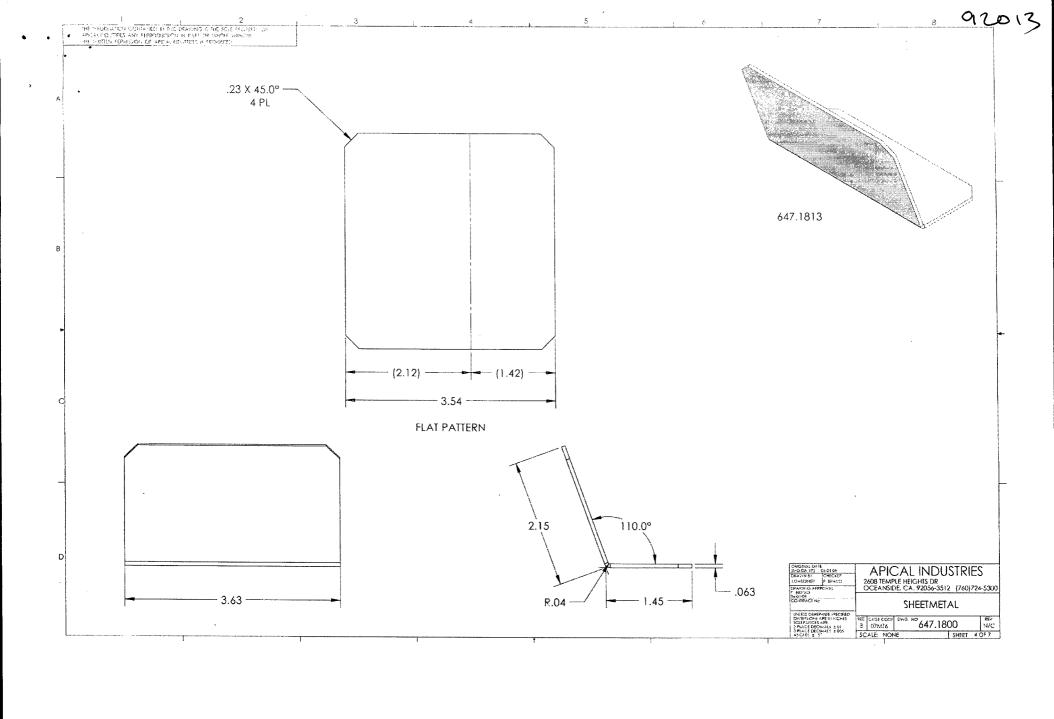
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Date: /2 //- /	Date:	12.11-01	Date:	-

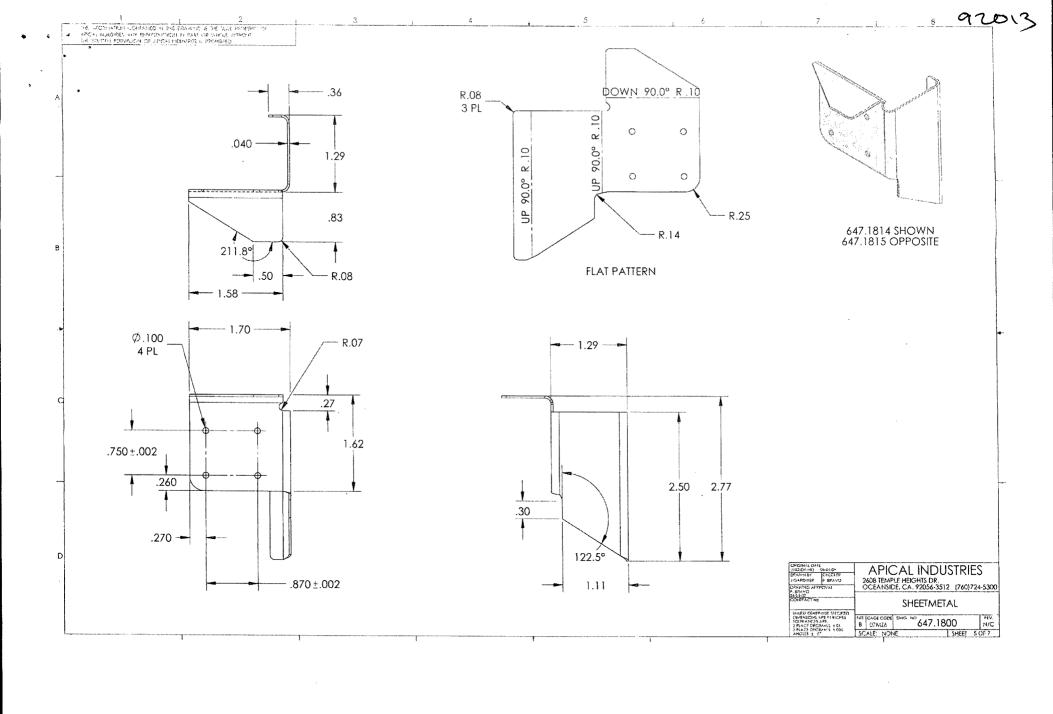
	Rev	Date	Change			Revised by	Approved
ſ	Ε	10.04.14	Added preliminary approval		. 4	KJ .	

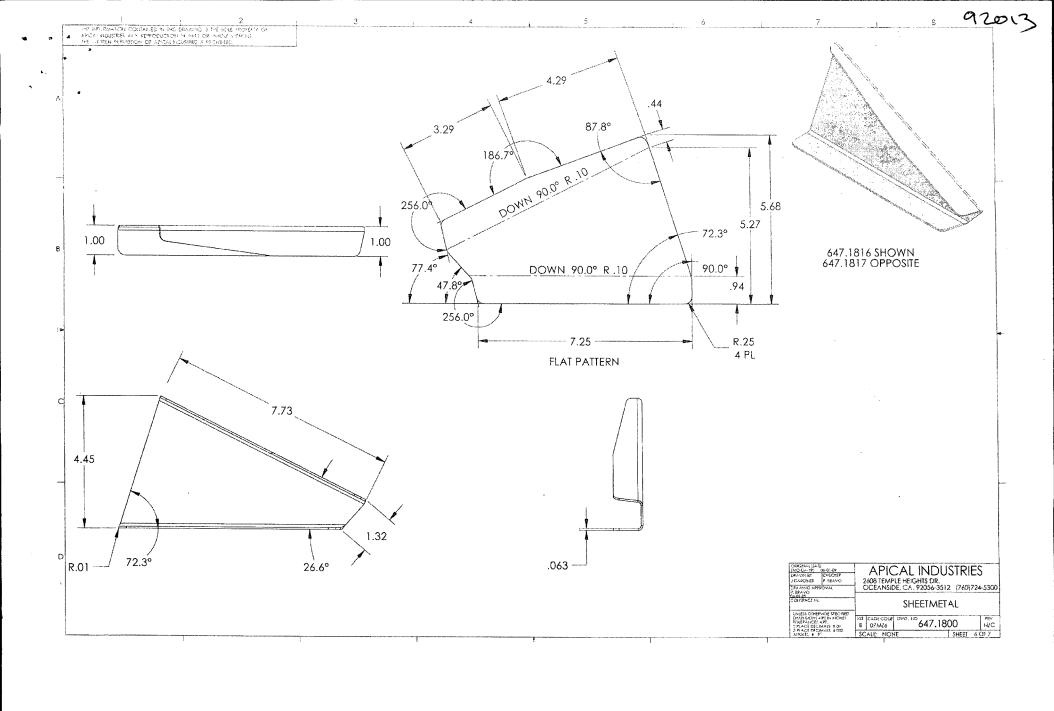


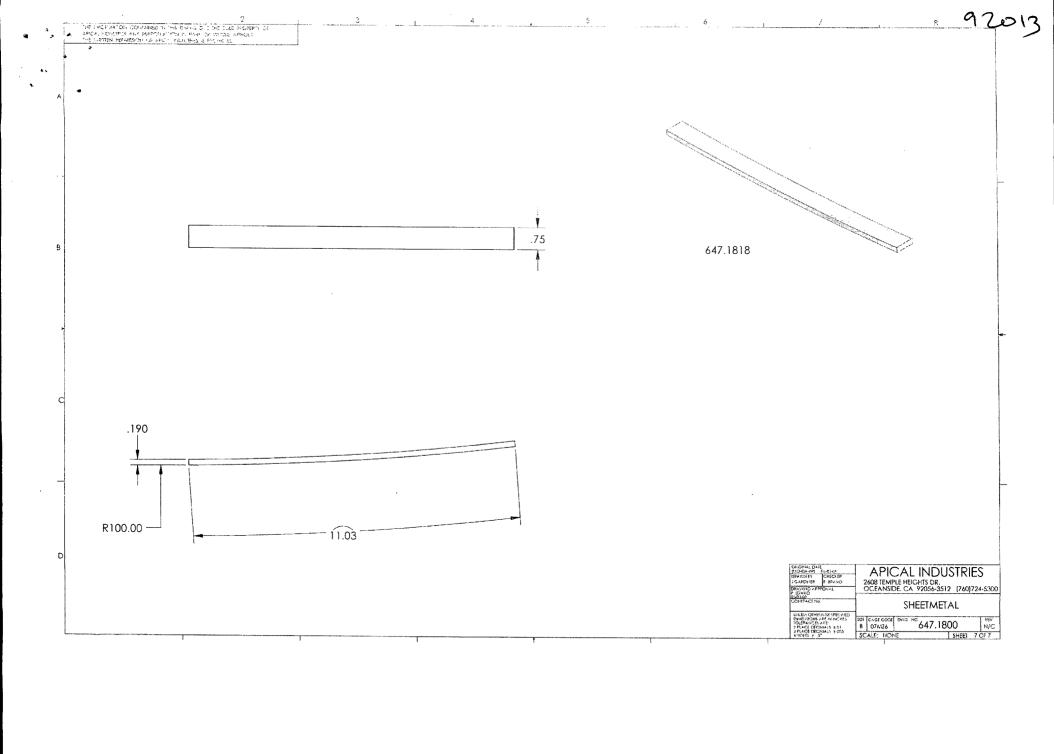














A.T.G. Industries Inc. 731, rue Industrielle Rd. PLATING DEPARTMENT Rockland, On K4K 1T2 Canada

Ph: (613) 446-4544 Fax: (613) 446-4556

Pack List

Number: 62076

Date: 27-Nov-12

To

DART AEROSPACE LTD 1270 ABERDEEN ST. HAWKESBURY, ON K6A 1K7 Canada Ship To

DART AEROSPACE LTD 1270 ABERDEEN ST. HAWKESBURY, ON K6A 1K7

Canada

Ph: 613-632-5200

Fax: 613-632-1185

Ph: 613-632-5200

Fax: 613-632-1185

Terms		Ship Via		
Quantity	Description	······································		
1	Part: ASST		Rev:	
lot	t			
	4 PCS D4410-11			
	2 PCS 647.1612			
	14 PCS 647.1812			
	11 PCS 647.1613			
	1 PCS 647.1810 2 PCS 647.1811			
	8 PCS-647.1814			
	11 PCS 647.1815			
	10 PCS 646:3110			
	HARD ANODIZE BLACK			
	MIL-A-8625 TYPE III CLASS 2			
	Job: 20120737	PO: PO18399	Line:	
-	Certificate of C	onformance		
	A.T.G. Industries certifies that all item with all requirements, specifications a	s in this shipment are in cor	nformance ne purchase order.	
	ISO 9001 : 2008 RI	EGISTERED		
	ATG SALES-2010	TERMS APPLY		
	DATE: 47/11/12			
	<i>u</i> ,	. /		
	CERTIFIED SIGNATURE: M	\mathcal{N}		
	CERTIFIED SIGNATURE :			
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	RECEIVER SIGNATURE :			
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